

Abstract of the Disclosure

Systems and methods for scheduling program units that are part of a process executed within an operating system are disclosed. Additionally, at least one thread is started within the operating system, the thread is associated with the process. Further, a plurality of streams
5 within the thread are selected for execution on a multiple processor unit. Upon the occurrence of a context shifting event, one of the streams enters a kernel mode. If the first stream to enter kernel mode must block, then the execution of the other streams of the plurality of streams is also blocked.